USER MANUAL

DORTAG VI

MIC 0302115

October 2005
Revision 01

INSTALLATION INSTRUCTIONS

THE READER HEAD/S

The reader head comes pre-wired with a 2m cable connected to it. If the cable is to be replaced with a longer cable, please note the following restriction:
Maximum cable lengths: - 5 meters unshielded cable
15 meters shielded cable
Wiring from the reader is as follows:

BLUE	**-**	**Buzzer (BUZ)**
RED	**-**	**Supply (+5V)**
BLACK	**-**	**Ground (-0V)**
YELLOW	**-**	**Loop +**
GREEN	**-**	**Loop -**

Two screws and two wall plugs are supplied with the reader head for mounting onto a wall. The following steps should be followed:

INSTALLING THE READER HEAD

1. Use the **READER HEAD** to mark off the holes to be drilled on the wall where the reader is to be mounted. **(Note: The holes should only be deep enough to accept the wall plugs.)**

2. Once the holes have been drilled insert wall plugs.

3. Mount the reader head and fasten the screws, making sure that the cable is run correctly.

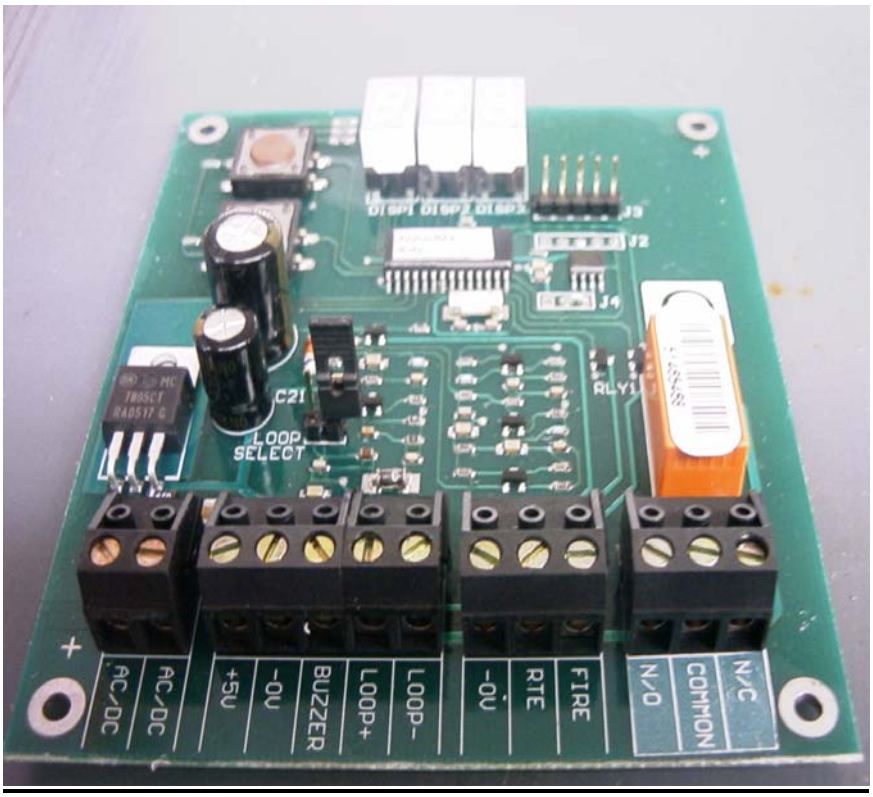
4. Place reader head sticker onto the reader head and align the reader head sticker LED hole with the LED on the reader head.

5. **Installing two reader heads** – It is possible to install two reader heads on this system. Please note that this is a single door system and there is only one output relay. The two heads will therefore be fitted to the ENTRY and EXIT points on a single door.

6. The two reader heads will be wired in parallel in the controller as per the instructions overleaf.

7. Jumper **LOOP SELECT** must be **OPEN** if one reader head is installed. ● ●
Jumper **LOOP SELECT** must be **FITTED** if two reader heads are installed. ●—●

INSTALLING THE CONTROLLER



Power	**AC / DC**	**12V AC / DC**
	AC / DC	**12V AC / DC**

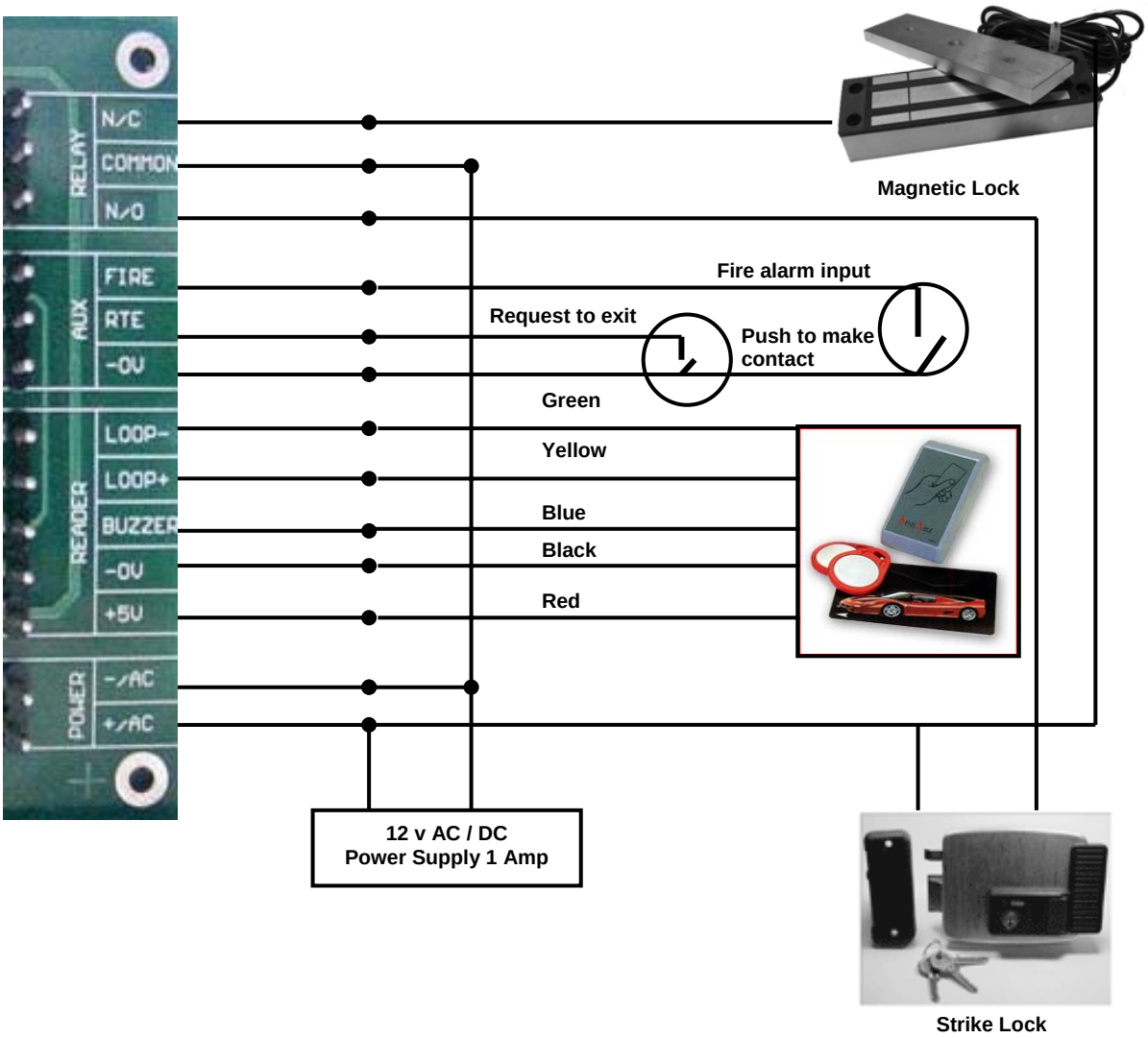
Reader	**+ 5V**	**Red** from reader head
	- 0V	**Black** from reader head
	Buzzer	**Blue** from reader head
	Loop +	**Yellow** wire from reader head
	Loop -	**Green** wire from reader head

Aux	**-0V**	**Bridge between RTE or Fire**
	RTE	**Request to exit input**
	Fire	**Fire alarm input (Normally open)**

Relay	**N/O**	**Normally open relay contact**
	Common	**Common relay contact**
	N/C	**Normally closed relay contact**

(Warning: Failure to follow the wiring instructions may result in permanent damage to the controller)

Single Door Access Control System
Wiring Details



Notes:

* Jumper **"LOOP SELECT"** must be fitted for two reader head applications.

** Normally open fire alarm contact opens door in the event of a fire.

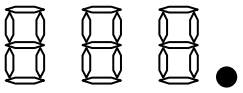
Fire alarm input:

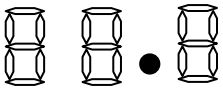
The fire alarm input is a facility whereby a fire alarm device such as an emergency glass break switch or fire alarm panel can close the circuit to open all doors immediately. Please note the fire alarm input is non latching, and Fail safe locks should be used with this function.

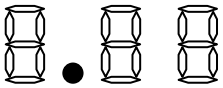
PROGRAMMING INSTRUCTIONS

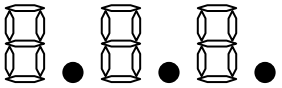
(Note: The DorTag VI employs AUTO EXITING software for security reasons. In any of the programming modes, the controller will automatically revert back to standard operating mode if the user takes no action within 30 seconds.)

Three different operating modes exist, as indicated by the display dot position.

POSITION 1  - Standard operating mode

POSITION 2  - User tag Learn mode

POSITION 3  - Voiding mode

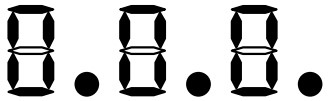
POSITION 4  - Master Tag Learn Mode

The **USER ACTION** indicates the steps the user must take to accomplish a certain **PROGRAMMING FUNCTION.**

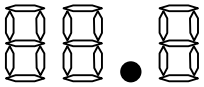
The **CONTROLLER RESPONSE** indicates the response that the controller will have to a **USER ACTION.**

IT IS RECOMMENDED THAT THE USER READ THE USER ACTIONS AND CONTROLLER RESPONSES CAREFULLY BEFORE ATTEMPTING TO PROGRAM THE CONTROLLER.

MASTER TAG - PROGRAMMING INSTRUCTIONS

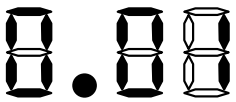
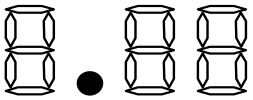
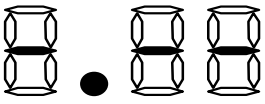
PROGRAMMING FUNCTION	USER ACTION	CONTROLLER RESPONSE
Teaching the controller a new **MASTER TAG.**	1. **PRESS & HOLD** button S1 (The top button. Note: Teaching a new **Master Tag** can only be done in **STANDARD MODE.**)	The controller display changes to the last card read while pressing this button in **STANDARD MODE**
	2. **(Warning: On presenting a NEW MASTER TAG, the entire memory will be voided and all user tags will have to be reprogrammed.)** While still holding button S1 press button S2. (The bottom button)	The controller will respond with 3 beeps immediately. After releasing buttons S1 and S2, the controller display will light up displaying  This indicates that the controller is in **Master Tag** learn mode and that the first tag to be presented to the reader head will become the new **Master Tag.**
	3. Present the new tag to the reader. (This tag will become the new **Master Tag.**)	The controller will respond with 3 beeps. This indicates that it has learned the new **Master Tag** and exited **Master Tag** learning mode. The controller is now ready for standard operation.

USER TAG - PROGRAMMING INSTRUCTIONS

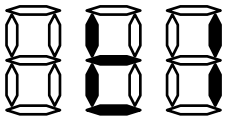
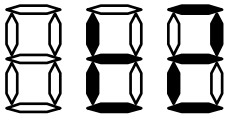
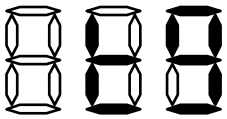
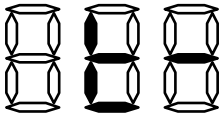
PROGRAMMING FUNCTION	USER ACTION	CONTROLLER RESPONSE
Teaching the controller a new **USER TAG**	1. Present the **Master Tag** to the reader and keep it in the reader field.	The controller responds with a single beep. After a few seconds, the controller responds with an additional 3 beeps indicating that it has entered **User Tag** learn mode. 
	2. Remove the **Master Tag** and present the new **User Tag(s)** to be learned one at a time to the reader.	1 second after presenting a new **User Tag**, the controller will respond with a single beep. This indicates that the controller has learned the new **User Tag**. **(Note: Should the controller respond with 3 beeps instead, it is indicating that the 1000 user limit has been exceeded and that the controller has exited User Tag learn mode.)**
	3. After teaching the controller the new **User Tag(s)**, present the **Master Tag** to the reader again to exit **User Tag** learn mode.	The controller responds with 3 beeps indicating that it has left **User Tag** learn mode. **(Note: Should the user forget to exit User Tag** learn mode**, the unit will automatically exit this mode after 30 seconds.)** **Note:** After completing this procedure, present each tag to the reader, press button S1 on the controller to display the tag number and record this number against the name of the user in a register. Repeat this exercise for all the new tags entered into the system.

Note: Should an invalid card or tag be presented to the reader, the unit will **NOT** respond with a beep and no user number will appear on the controller.

USER TAG - VOIDING INSTRUCTIONS

PROGRAMMING FUNCTION	USER ACTION	CONTROLLER RESPONSE
USER TAG VOIDING	1. Present the **Master Tag** to the reader and keep it in the reader field.	The controller responds with a single beep. After a few seconds, the controller responds with an additional 3 beeps indicating that it has entered **User Tag** learn mode.
	2. Press button S2	The controller responds with 3 beeps, and after S2 is released,  is displayed. This indicates that the controller has entered **User Tag Voiding** mode.
	3. Press button S2, to scroll to the **User Tag** number that has to be voided from the system. (Note: By holding button S2 in, the scrolling speed will increase.)	The number displayed on the display is the number of the **User Tag** that will be voided from the system when button S1 is pressed.
	4. To void a **User Tag** from the system, **PRESS** S1 button.	When voiding a **User Tag,** the controller responds with a single beep and the display changes to  (Note 1: The display shows the memory location acted on rather than whether there is a code or not. If  is displayed, that location has been voided. If the display is incremented to that memory location again, the location number will be displayed again.) (Note 2: The **Master Tag** memory location can not be assessed unless the whole memory is voided. See **Master Tag PROGRAMMING INSTRUCTIONS.)**
	5. To exit **User Tag Voiding** Mode, leave the controller for 30 seconds.	The unit responds with 3 beeps and enters **STANDARD MODE.**

RELAY OUTPUT TIME PROGRAMMING INSTRUCTION

PROGRAMMING FUNCTION	USER ACTION	CONTROLLER RESPONSE
Adjusting the door lock mechanism **RELAY OUTPUT TIME.** This function is used to set the time, for which the relay will provide an output to the door latch, in the event of a card/tag being introduced or the push and release of the free exit (RTE) push button. The default time setting is **t1** (1 second) Note: When re-setting the relay output time the door alarm settings will need to be reset at the same time.	1. Press S2 and release 2. Continue pressing S2 to increment the timer until the required time setting is achieved. 3. Leave the unit for 30 seconds to exit this **MODE** or press S1.	Unit responds with **3 Beeps** and shows  The display increments up to  (**2 seconds**), up to  **(9 seconds**)  This is a special setting for a **150mS PULSE OUTPUT** The unit responds with 3 Beeps and enters **STANDARD MODE.**

LAST TAG READ INSTRUCTION

Looking for the **LAST TAG READ**	1. In **STANDARD MODE** press and hold S2 2. Release button S2	The number of the last tag read will be displayed.

TECHNICAL SPECIFICATIONS

HARDWARE

Operating Voltage	**12V AC/DC**
Average Current Consumption	**33mA (1 Reading Head)**
Maximum Current Consumption	**55mA @ 12V**
Relay Output Rating	**24V / 5A Change over contacts**
Operating Frequency	**125kHz (50Hz – 4kHz modulation)**
Read range	**6cm – 10cm (Dependant on tag type)**
Reader heads	**1 or 2**
Read head feeder cable length	**2m Standard, 5m max if unshielded. 15m max if shielded.**
Cable	**5 Core**
Mechanical dimensions	**Controller - 104mm(L) x 94mm(W) x 25mm(D)** **Reader head – 75mm(L) x 39mm(W) x 15mm(D)**
Environmental Rating	**Controller – IP00** **Reader head – IP54**
Mass	**Controller – 70g** **Reader head – 70g**
Operating temperature	**-10°C to +60°C**
Indications	**Visual – Bi Colour LED** **Audible - Buzzer**

(* The unit communicates with signals between 50Hz and 4kHz and should thus be installed away from any such signals.)

SOFTWARE

Users	**1000 max**
Code Size	**64 bits**
Read Time	**< 2 seconds**

SPECIAL FEATURES

- Auto frequency tracking
- Auto exiting software
- Master tag learn mode
- Master tag voiding
- Individual tag voiding
- Entire memory voiding
- Last tag read display
- Door sensor input
- Auxiliary free exit - timing as per relay output time
- Fire alarm input
- Programmable relay output time (150ms – 9 seconds)
- Two reader head capability